

## 2011 Dry Weather Screening and Illicit Discharge Detection Elimination (West Fork Stones River Watershed)

The city of Murfreesboro is required to detect and eliminate possible illicit discharges under the MS4 Permit rule 4.2.3. The Murfreesboro Water and Sewer Department screens outfalls along a selected stream and junction boxes in “hot spots” yearly in dry weather



conditions to help detect possible illicit discharges. In October of 2011, outfalls on the West Fork Stones River were screened for illicit discharges.

Photographs were taken of all outfall structures screened in addition to the individual structure’s condition and dimensions. The stormwater program also derived “hot spots” which are locations of intense commercial or industrial activities. 8 junction boxes were screened within these hot spots in 2011. All junction boxes and outfalls were screened during dry weather where

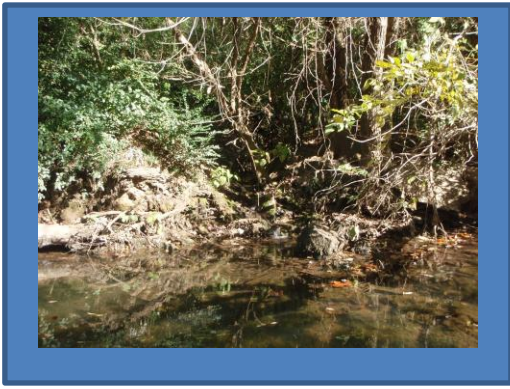
more than 72 hours had passed without precipitation. In order to screen outfalls to the West Fork Stones River, 6.03 miles of the river was canoed. This gave an opportunity to screen the river for other possible problems. All outfalls screened were logged into the MS4 Web stormwater program reporting software with general conditions of the outfalls and pictures.

### Results

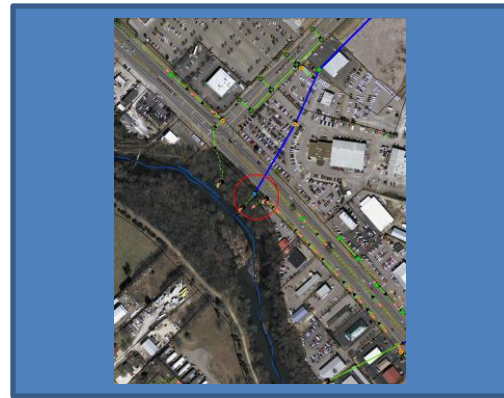
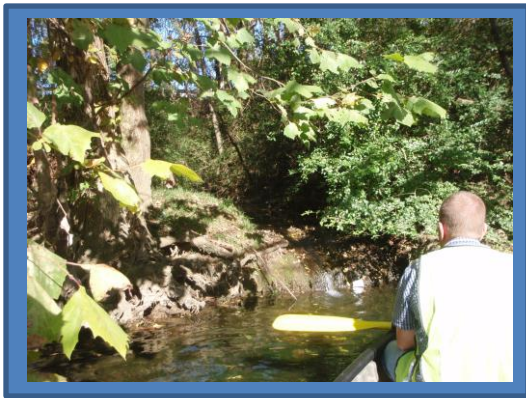
Number of Junction Boxes Screened	Number of Outfalls Screened	Suspected Illicit Discharges or Flows	Illicit Discharges Confirmed
8	31	3	0

### Outfalls with flow

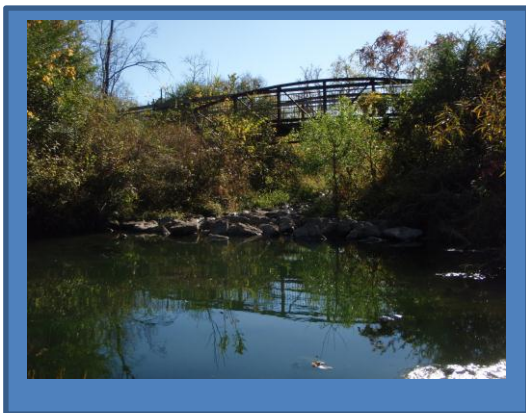
1. Flow emerging from right bank of WFSR looking downstream. Near 1305 NW Broad St. This flow has been monitored in the past and does not seem to be connected to the stormwater system but may be groundwater flow from a perched aquifer. Further research is planned for the possible spring.



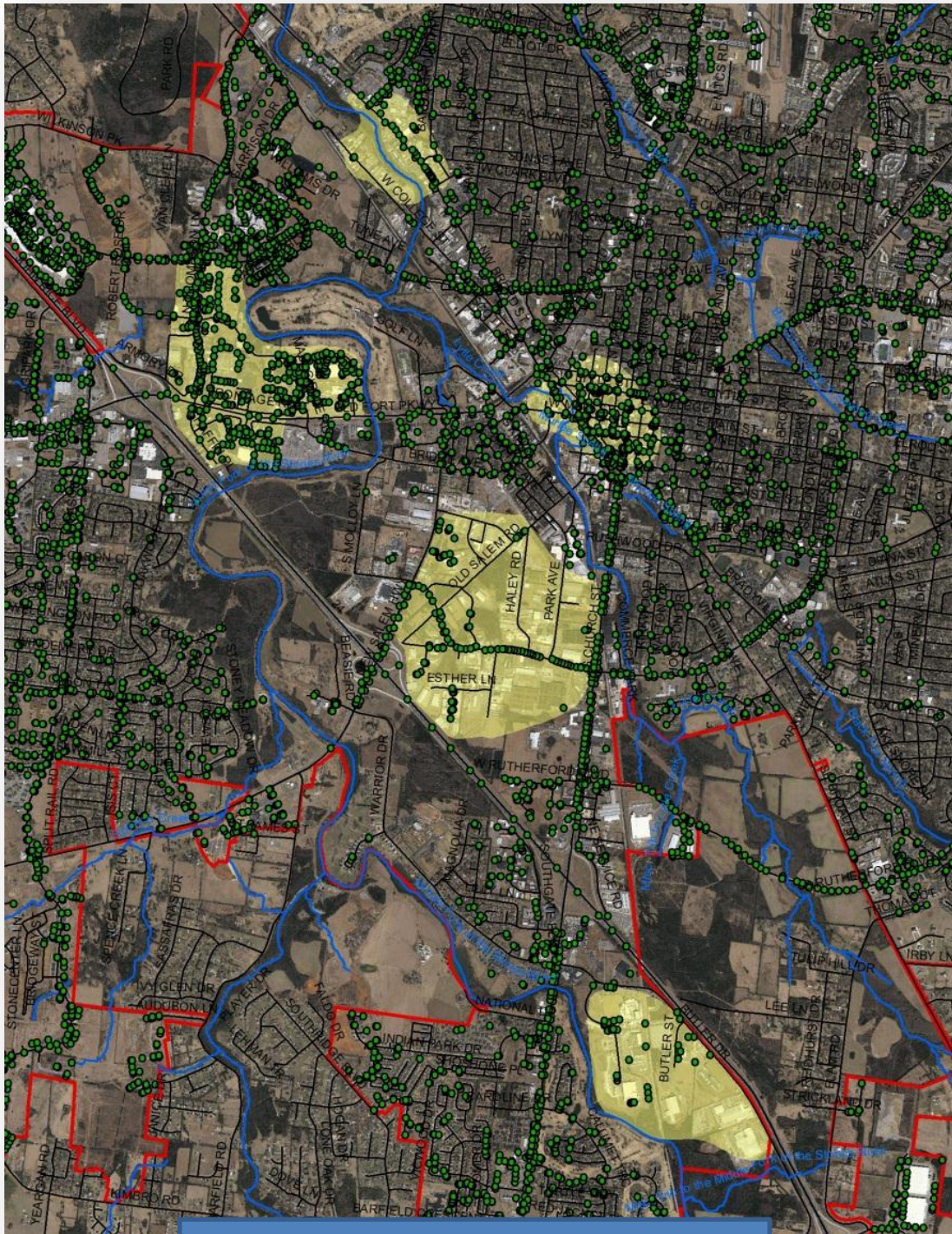
2. Large culvert located approximately 150 ft. off the right bank of the West Fork Stones River near the intersection of NW Broad St and Northfield Blvd. Culvert is thought to be a moderate size spring that has been pipe in conjunction with stormwater infrastructure as indicated on old maps and photography but not confirmed.



3. Large rip rap ditch and culvert on left bank of the West Fork Stones River near intersection of W. College St. and Hope Way. Flow sampled to have .6 mg/l fluoride and near old dye traces. The flow could be groundwater or loss of water at a nearby lake used for storing re purified water. This area will be continued to be monitored.







Yellow = Hot Spots, Green Dots = Junction Boxes



